

CLAIMS

What is claimed is:

1. A system for directing water, nutrients and air to a root system of a plant in the ground, the system comprising a delivery unit having:

an elongated, hollow housing that is adapted to be installed in a generally vertical orientation into the ground proximate the root system, the housing including a wall member that defines an internal cavity with an open top and an open bottom, the wall member being configured to permit water and air to be transmitted therethrough at least at a plurality of discrete points;

a plurality of deflectors spaced about a perimeter of the internal cavity, the deflectors being configured to capture at least a portion of a quantity of water poured into the open top when the delivery unit is installed in the ground, the deflectors being further configured to direct the captured water outwardly toward the wall member so that it may be passed therethrough;

an upper flange extending outwardly from the housing proximate the open top; and

a lower flange coupled to the housing, the lower flange extending outwardly and upwardly from the housing.

2. The system of Claim 1, wherein the deflectors include a reservoir portion that is adjacent the wall member, the reservoir portion being configured to hold an amount of water against the wall member.

3. The system of Claim 2, wherein each of the deflectors also includes a slanted upper portion that directs water into the reservoir portion.

4. The system of Claim 1, wherein a plurality of holes are formed into the wall member.

5. The system of Claim 1, wherein the wall member is formed of a porous material.

6. The system of Claim 1, wherein at least a portion of the deflectors are vertically spaced apart from one another.

7. The system of Claim 6, wherein the deflectors are radially spaced apart from one another such that the quantity of water that is poured into the open top must come into contact with at least one of the deflectors.

8. The system of Claim 1, further comprising a second one of the delivery units and a fluid conduit that interconnects the delivery unit and the second one of the delivery units.

9. The system of Claim 8, wherein the fluid conduit includes a porous upper portion and a lower portion that is less porous than the upper portion.

10. The system of Claim 9, wherein the lower portion is impermeable to water.

11. The system of Claim 8, wherein the wall member includes a plurality of perforations that cooperate to define an aperture that may be selectively formed in the wall member by punching out a portion of the wall member that is constrained by the perforations, the aperture being sized to receive the fluid conduit therethrough.

12. The system of Claim 1, further comprising a cap covering the open top, the cap being configured to permit water and air to be transmitted therethrough.

13. The system of Claim 12, further comprising a dip stick extending through the cap into the internal cavity of the housing.

14. The system of Claim 1, further comprising a mount that is coupled to the wall member, the mount being adapted to couple a water irrigating device to the housing.

15. The system of Claim 14, wherein the wall member includes a plurality of perforations that cooperate to define an aperture that may be selectively formed in the wall member by punching out a portion of the wall member that is constrained by the perforations, the aperture being sized to receive the water irrigating device therethrough.

16. A delivery unit for directing water, nutrients and air to a root system of a plant in the ground, the delivery unit comprising:

an elongated, hollow housing that is adapted to be installed in a generally vertical orientation into the ground proximate the root system, the housing including a wall member that defines an internal cavity with an open top and an open bottom, the wall member being configured to permit water and air to be transmitted therethrough at least at a plurality of discrete points; and

a plurality of deflectors spaced about a perimeter of the internal cavity, the deflectors including an upwardly sloped portion that is configured to capture at least a portion of a quantity of water poured into the open top when the delivery unit is installed in the ground and to direct the captured water outwardly toward the wall member so that it may be passed therethrough.

17. The delivery unit of Claim 16, wherein the deflectors further include a reservoir that is disposed between the upwardly sloped portion and the wall member.

18. The delivery unit of Claim 16, further comprising an upper flange that extends outwardly from the housing proximate the open top.

19. The delivery unit of Claim 16, further comprising a lower flange coupled to the housing, the lower flange extending outwardly and upwardly from the housing.

20. The delivery unit of Claim 19, wherein the lower flange is located proximate the open bottom of the housing.

21. A delivery unit for directing water, nutrients and air to a root system of a plant in the ground, the delivery unit comprising:

an elongated, hollow housing that is adapted to be installed in a generally vertical orientation into the ground proximate the root system, the housing including a wall member that defines an internal cavity with an open top and an open bottom, the wall member being configured to permit water and air to be transmitted therethrough at least at a plurality of discrete points;

an upper flange extending outwardly from the housing proximate the open top; and

a lower flange coupled to the housing, the lower flange extending outwardly and upwardly from the housing.